

FOLIO

UNIVERSITY OF ALBERTA
10 JANUARY 1992



INSIDE

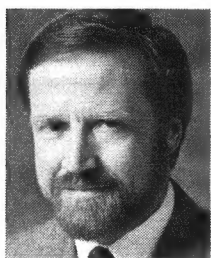
- Tom Grundner brings Cleveland Free-Net perspective to town
- More coverage of staffing the U of A in the '90s colloquium

Advanced Education official says longer-term grants will increase *Take Smith Report seriously, ADM urges University*

It's realistic to expect that government will return to grant adjustments that reflect inflation, Advanced Education Assistant Deputy Minister Neil Henry told participants at the Staffing the University of Alberta in the 1990s: Recruitment and Retention colloquium, 17 December.

Although cautioning that the next two fiscal years, at least, are still going to be tough ones, Henry predicted government will have to respond to an increasing demand for university education by those children of the baby boomers, the so-called echo-boom.

On the specific challenges facing the University in recruiting and retaining faculty, Henry said retention is an area where governments will tread very cautiously. Governments are the biggest consumers of PhD graduates and universities are the biggest suppliers, he said.



Neil Henry

"I would not preclude some financial response to hiring and retention of faculty in the reasonable, near future," he said. "I guess this would have to be a high priority for all the universities in the province ...

and I would guess it would have to be done collectively."

The Assistant Deputy Minister said governments tend to take a narrow view of universities as suppliers of manpower, so there's a focus on undergraduate education. "I've heard some unkind remarks about Stuart Smith's Report," he said, commenting on the day-long colloquium's content. "I think I would take it [the one-person commission funded by the Association of Universities and Colleges of Canada] seriously as a reflection of perceptions out there."

"The recruitment and retention of faculty focused exclusively on quality of research is not going to attract loud cheers from government," he said. "I personally regard the Stuart Smith Report as an interesting artifact of communication between universities and government."

Henry predicted that people in government are going to increasingly and more clearly understand the link between the quality of training and education and the ability to survive in the modern world. And postsecondary education funding will remain a high priority of this government and will remain that way regardless of what political party is in power.

Canadian Cold Buster rebounds from adversity

The immediate future of the Canadian Cold Buster was a bit cloudy as *Folio* went to press 9 January.

However, the hypothermia-fighting candy bar's inventor, Larry Wang (Zoology), said earlier in the week that the new product is tentatively scheduled to go back on sale at the beginning of next week.

Speaking from China where he is just completing a brief visiting professorship at Peking University, Professor Wang said Health and Welfare Canada should soon give the OK to resume sales and "we'll follow exactly what they would like us to do." He indicated that there would be more vigilance at both the factory and the retail level.

Last Friday, stocks of the Canadian Cold Buster were removed from store shelves and counters across Canada. (About 90 percent of the bars are in Alberta.) The action was precipitated by a claim from a group calling itself the "animal rights militia" that it had injected liquid oven cleaner into 87 Cold Buster bars that were in stores in Edmonton and Calgary. The group made its claim in letters to *The Journal* and to *The Canadian Press*; *The Calgary Herald* was contacted in a similar manner 6 January.

In the worst case scenario, Professor Wang said L and R Wang Enterprises Ltd, owner

of the Canadian Cold Buster, could lose about \$100,000 because of the removal of the bars and the shutdown of production. "I don't think the insurance will cover this [sabotaging or voluntary withdrawal of the product]," Professor Wang said.

The activist group took issue with the experimentation leading to the emergence of the Canadian Cold Buster, stating that Professor Wang "slaughtered thousands of rats" in his 16 years of research. He countered by stressing that his research has been scrutinized by the Canadian Council on Animal Care and by the granting agencies which have helped fund that research.

"I've published 25 articles and several books [on cold physiology and hibernation studies] and not once was I challenged. It's a free country; there are many channels and avenues in which to challenge a researcher. Why do you [animal rights militia] want to hold the public as hostage. It's a very irrational and inconsiderate act."

Professor Wang said he can't understand why anyone would want to sabotage his invention unless someone has a personal vendetta against him for reasons that doesn't know about.

Continued on page 2



Natalie Strynadka demonstrates a mastery of synthetic peptide chemistry, viral antigen-antibody interactions, protein crystallography, and molecular modelling by computer and molecular enzymology.

Exceptional biochemist also finds time to give to the community *Strynadka one of U of A's two winners of new NSERC prizes*

Natalie Strynadka may work exceptionally hard at her work—hard enough in fact to be awarded one of the Natural Sciences and Engineering Research Council of Canada's prizes recently established to recognize the country's best PhD graduates.

But the 29-year-old researcher, who studied under one of the country's foremost biochemists, Michael James, says there's got to be a world beyond the lab. "You go through periods where you work very hard and the work's very close and exciting. It can be very intense, but you need other stimulation."

The holder of a J Gordin Kaplan Memorial Post-Doctoral Fellowship says, "I love to hike, ski and canoe and, generally, be outside as much as I can. That's one drawback to this job," says Dr Strynadka, who often finds herself closeted in dark rooms, studying the molecular world via computers.

"I try to do as much for the community as I can," says the Sherwood Park native. Those activities include volunteering for the Food Bank and contributing her time and energy to Project Ploughshares, the Canadian Parks and Wilderness Society and Friends of the North.

Dr Strynadka, who earned a BSc (Honours) from the U of A and defended her PhD thesis in September 1990, says there's really no other place she'd rather be. She considers herself fortunate to be working with outstanding people in one of the country's top biochemistry departments. In fact, when she received word that she had been awarded the prestigious NSERC award, she was surprised because she's felt so fortunate to be doing what she's doing.

According to her external examiner, Sir David Philips, a Fellow of the Royal Society, "It must be stated firmly that Dr Strynadka has addressed three of the critical problems of structural molecular biology with outstanding success. This is a work of an astonishing range for a PhD thesis and of quite exceptional quality." NSERC reviewers agreed.

Dr Strynadka, who has published in the most senior journals in the discipline and who is already considered by her peers to be a senior researcher, linked with her thesis three apparently disparate aspects of protein structure and chemistry: antigenic determinants of glycoprotein D of herpes simplex virus; the crystalline nature of several calcium binding proteins; and the x-ray crystallographic structure of lysozyme.

"What we do in my field is look at the three-dimensional structure of clinically important proteins," she explains. "We actually get a picture of what these [viral or bacterial] molecules look like at the atomic level. What we want to be able to do is synthesize and design inhibitors or drugs [that work] against these viral or bacterial proteins."

"By knowing the three-dimensional structure of these proteins we can better design an inhibitor that is specific only to these viral or bacterial proteins. In that way, you inhibit those proteins without producing the side effects you get from drugs that also inhibit proteins your body needs."

Dr Strynadka expects to continue post-doctoral work here at the University. She'd like to stay in the University environment, because she prefers to do more basic work and to have the freedom researchers enjoy in the University environment. She also sees the growing interdisciplinary nature of biochemistry as a positive development.

Like many researchers, she's concerned about the funding of research. "Of course you want the maximum funding that is possible." The University and government have to keep one another informed. Biochemists have to explain to people in government that what they [biochemists] do is important. What biochemists do has potential medical applications, so it's easier for governments to fund biochemistry in the public eye, she says.

Next week: Barry Bara

LETTERS

Better understanding of international graduate students' circumstances needed

I am somewhat distressed at the inaccurate and misleading information contained within the article titled "Grad Student Says Get Rid of Differential fees", under the heading "Senate Briefs" in the 29 November *Folio*. I am not too sure of the sources of these difficulties, but I write in order that the record may be put straight and any misunderstandings cleared up.

Firstly, your article cites Dean Peter Miller as noting that international students must provide documentation of adequate finances prior to receiving student visas. The implication from this remark is that in order to receive a student visa, it is necessary for international students to have adequate funds. However, this implication is misleading. The immigration authorities, at least in the case of a graduate student holding a teaching assistantship, are only concerned with the gross income of the TA. They do not take the cost of tuition fees into consideration. Hence it is possible to obtain a student visa without the necessary resources actually being available. This situation should not be viewed as being too problematic however. This is because the amount of money that the immigration authorities believe is necessary to exist is much greater than the amount it is actually possible to get by on. Perhaps a more ideal situation would be if it was the university which was responsible for stipulating the funds required by an international student. This, I believe, is the system used in the US. If this policy was adopted here, then

the U of A would have a clear responsibility to fund international students with TAs adequately.

Dean Miller also claims that student visas have to be renewed annually. This is simply false. Visas are renewed for as long (or as short) as the immigration officer believes is justifiable given the individual student's circumstances. I personally have had visas for as long as three years and as short as three months.

While President Davenport is partially correct in claiming that TAs at the U of A are among the highest paid in the country, his claim too is misleading. While the dollar value of a U of A TA does compare favourably with the dollar value of TAs elsewhere, such comparisons do not accurately reflect the whole picture. Many universities in this country (including the University of Calgary) and in the US offer their TAs fee waivers over and above the money which TAs are paid. At this University, fee payment may take up as much as a quarter or a third of a TA's annual income. If comparisons are made upon a 'level playing field', a TA at the U of A does not look nearly as good.

Finally, the remarks the President makes about the amount of money he has committed to graduate students are also liable to misinterpretation. While the figures are strictly correct, the President (no doubt inadvertently) overlooked that fact that, for example, some of the money committed to PhD scholarships comes from the money which was previously used to fund teaching assistantships. Taking money from graduate student funding and then returning the money to graduate students in a

slightly different form is not sufficient, to my mind at least, to establish the "commitment to graduate students" which Dr Davenport wishes to claim.

Judging from the comments reported in *Folio*, it can be no surprise that graduate students, particularly international graduate students, are in such dire financial straits so as to need an on-campus food bank. It seems clear that the senior administration either has a very limited appreciation of the circumstances faced by students, or would rather ensure continuing good publicity than admit that problems exist.

István SN Berkeley

Graduate student, Department of Philosophy

SENATE TASK FORCE ON STUDENT FINANCE

The Senate Task Force on Student Finance is currently examining the relationship between financial resources and student financial needs.

To make this study a meaningful one, it is important to hear from as wide a cross section of the University population as possible. The Task Force will be accepting briefs and personal anecdotal information, both written and oral, during the months of February and March.

Please notify the Senate Office of your intention to make a submission by 31 January so that your hearing may be scheduled.

Contact Mary Totman or Mary Jane MacDonald, telephone 492-2268.

Cold Buster

Continued from page 1

The majority of Professor Wang's research involves rats and ground squirrels and is directed at how animals regulate and control body temperatures in cold weather. The Canadian Cold Buster, which is made up of natural ingredients and which was tested solely on humans, was an offshoot of the research.

Asked what safeguards are in place for research involving animals, Don McKay, Director, Biosciences Animal Services, said the Biosciences Animal Care Committee, which is overseen by the University's Animal Welfare Committee, reviews projects beforehand and provincial inspectors drop in unannounced twice a year. The Canadian Council on Animal Care familiarized itself with Professor Wang's research and Dr McKay and his staff of technicians were continually associated with it. All animals were maintained in a central facility and cared for by Biosciences Animal Services staff, Dr McKay told *Folio*.

Professor Wang uses a large number of animals in his research but you have to appreciate that he's got the second largest research team in the Faculty of Science and has 15 to 20 projects in progress at any one time, Dr McKay said. He added that there's more to Professor Wang's research than the Cold Buster. For example, Professor Wang and others have developed techniques for reviving people who, through whatever circumstances, have contracted hypothermia.

Professor Wang will return to Edmonton this weekend. He gave his acceptance speech at Peking University on 7 January and said the visiting professorship was a high honour for him in that that institution is regarded as the best university in China.

FOLIO

Volume 29 Number 20

OFFICE OF PUBLIC AFFAIRS,
423 ATHABASCA HALL
UNIVERSITY OF ALBERTA, EDMONTON,
ALBERTA T6G 2E8

TEL: (403) 492-2325 FAX: 492-2997

MTS - TJMH PROFS - ZZOPA

All enquiries and correspondence should be directed to:

RON THOMAS: EDITOR

MICHAEL ROBB: ASSISTANT EDITOR

Public Affairs produces *Folio* on a regular basis for the staff and other interested persons.

DEADLINES:

Notice of coming events: 9 am three weeks in advance of event. **Classified advertisements:** 3 pm one week before desired publication date. This date also serves as the deadline for cancellation of advertisements.

Advertisements cost 40 cents per word with no discount for subsequent insertions. There is a limit of 30 words and a minimum charge of \$2.00. Advertisements cannot be accepted over the telephone. All advertisements must be paid for in full at the time of their submission.

Display advertisements: 3 pm Thursday, eight days before desired publication date. Camera ready artwork is required to size, complete with halftones if necessary. Contact Public Affairs for sizes, rates and other particulars.

The editor reserves the right to limit, select, edit and position submitted copy and advertisements. Views expressed in *Folio* do not necessarily reflect University policy. *Folio* contents may be reprinted with acknowledgment.

ISSN 0015-5764 Copyright 1992

BOARD OF GOVERNORS

BRIEFS

Board continues outreach program

The Board of Governors will continue its policy in this new year of meeting off campus. On 7 February, the Board will bus it to Red Deer; on 3 April it will meet at the Edmonton Public School Board Centre for Education; and on 2 October the meeting will convene in Lloydminster.

GSA representative defends food bank

The food bank established by the Graduate Students' Association has become a preoccupation for the GSA, but hopefully the Board of Governors and the provincial government will look at some of the solutions to student needs that would make the food bank on campus unnecessary, said GSA President Ken Ross.

Board member Al Hiebert said the city has a food bank, accessible to all, and he questioned whether the campus food bank was unnecessary duplication. "Has the food bank really been set up to meet a need or to draw attention to some other major issues?"

"No, we set it up in good faith, thinking that there are some immediate needs," said Ross.

Nonstudents now living in University residences

The residences' vacancy rates, as of 30 November, were: Faculté Saint-Jean, six percent; Lister Hall, six percent; Pembina Hall, six percent; Garneau, two percent; HUB, two percent; and Michener Park, six percent. President Paul Davenport said despite the rent increases in recent years, the vacancy rates appear to be low.

Ross pointed out that there are now nonstudents living in Michener Park.

The Board agreed that the rents would be set to fulfill the long-standing policy of having the residences break even, said the President. "Students are admitted first and if we can't fill the buildings with students, then one option for [Housing and Food Services Director] David Bruch is to have others in them," the President said, adding that he would get a report on exactly how many nonstudents are living in University residences.

Renovations approved for Heritage Wing

The Board Building Committee reported that it has approved the spending of up to \$911,861 to provide for major renovations in unfinished space in the Heritage Wing of the Heritage Medical Research Centre for the Protein Engineering Network Centres of Excellence project.

Admissions policy tough to communicate, President says

The University's admissions policy has been difficult to communicate to students, the President told the December meeting of the Board of Governors.

"Now that we're in a new environment of undergraduate admissions and the Board has set targets for admissions, it's difficult to communicate in advance exactly what those standards would be," Paul Davenport explained.

"What we have been doing is looking at a certain number of applications, admitting a certain cohort, seeing where that takes us relative to the Board's targets, admitting another cohort and so on," he said. "We have been concerned that newspaper reports referring to the need for a 73 percent or a 75 percent average were discouraging students from applying. In fact, in the past few years we have gotten down to the 70 percent standard set by the Board.

"So this year [1991] the Registrar has written to Alberta school superintendents, principals and student counsellors to say that if students meet all the requirements and have a 70 percent average, they'll be admitted." That applies in the Faculties of Arts, Agriculture and Forestry, Science, Home Economics, Faculté Saint-Jean and the School of Native Studies.

"You can see that we're taking a bit of a risk here, that we will get bumped up above the target," he said. "But we thought that risk was better than the corresponding risk of having students who were eligible for entry not applying."



University
of
Alberta

Deans suggest strategies U of A will need to hire and keep faculty

The University of Alberta will need to be creative and work harder to hire and keep faculty. That was the message several Deans gave at the Staffing the University of Alberta in the 1990s: Recruitment and Retention colloquium, 17 December.

Dean of Arts Patricia Clements said, "In the Faculty of Arts, 46 percent of our academic staff are 50 years or older. Twenty-one percent are 55 and older. In the next 15 years, clearly, we will need to be recruiting massively, and some of our departments will need to replace nearly half of their staff within the next 10 years."

But how should the U of A continue recruiting the best faculty? she asked. "It's quite clear that we need to have a clear sense of what our academic priorities will be in the coming decade, and that we need to know where we will be putting our resources."

She reminded colloquium participants that the institution will have to retain some flexibility in its institutional arrangements, since those new faculty have a quite different idea about what the Faculty of Arts will look like than those who were educated in a different generation.

The Dean had several suggestions: visit other universities' graduate schools to inform graduate students about the U of A's strengths; identify our own best graduate students and learn to keep them here; look at joint appointments not just across departments but across Faculties; establish an "opportunity fund" to enable chairs to hire outstanding people when they find them; learn to help one another in the area of spousal arrangements; and develop more effective employment equity plans.

"The way in which we get the best candidates here is by reminding ourselves that we have some of the best departments. Good people come to the best places," she said. "The major way of getting them and keeping them is to keep the intellectual standards up in both teaching and research."

Faculty of Medicine Dean Doug Wilson said "early identification of future faculty is a way of life for us." Data tends to suggest that where physicians study correlates with where they'll eventually work. Dean Wilson said joint appointments are the rule in 10 of the Faculty's departments and the Faculty has a high attrition rate because of international recruitment competition.

Acting Dean of Science Bob Crawford said 68 people in the Faculty are expected to retire by the turn of the century. At the most, he said, the Faculty will have to recruit about 100 positions in that period, but it will not be uniform across departments. In the Faculty of Science, critical attractions for new faculty are equipment and adequate laboratory space, he said.

Bruce Dancik, who chairs the Council of Department Chairs, said that in order to keep good faculty, the University is going to have to maintain good laboratories and good library resources. He said University recruiters cannot bury their heads in the sand—they must recognize that there will be two-career couples. So, that will mean looking at such support services as child care.

They'll have to emphasize the city's quality of life and its affordable housing, he said. And for those young faculty who do not have tenure yet and who are feeling uneasy about job security, the University will have to give them some assurances.

Jean-Louis Malouin, Dean of Business, said starting salaries in his Faculty are about 25 percent higher than in the other Faculties. Only about 50 PhDs in business are being produced each year in Canada, so the competition is fierce. And there are about 225 professorial openings in the country.

"We're hiring the best, because that's what we feel will save us," he said, but Business has to pay the faculty it does have more, thus making it difficult to fill vacancies. That's forced the Faculty to use sessionals to teach fully one-third of its courses.

Vice-President (Student and Academic Services) Lois Stanford explained that there are four basic assumptions underlying what she and Human Rights Office Director Fran Trehearne believe about employment equity. First, we want to hire the best individuals. Second, we want to draw from the whole pool of people academically qualified for positions. Third, we pride ourselves on having a welcoming and nurturing climate for newcomers. Fourth, the University has some responsibility to increase the pool of available, qualified applicants.

What we're after, said Trehearne, is equality of result, and that may mean not treating people in exactly the same way.

Trehearne outlined a number of incidents of harassment on campus and said these have an impact on people's decisions about whether they will go on to do further studies. "We have to ask ourselves, 'Is this a place where intolerance can flourish? Is the ethos of the campus powerful enough to prevent individuals from acting on their prejudices in these ways?' I think that the people who were affected in these incidents would say no [to the last question]."

About 1,000 new faculty will be needed by year 2000

The University will need 1,002 new faculty by the year 2000, Associate Vice-President (Academic) Brian McDonald and Director of Budget and Statistics Bill Cairns stated at the Staffing the University of Alberta in the 1990s: Recruitment and Retention colloquium.

"It's surprising it isn't higher," said McDonald, in presenting statistical data for participants who included Chairs, Deans, government officials, senior administrators, APOS, and professors. "That's simply 100 new professors a year, the same number we've been hiring for the last three years."

"We're going to have a considerable amount of recruiting activity in the next few years, but in total it doesn't look that much different than our recent past."

Brian McDonald

Assuming in the data that the University would be able to find the money to sustain an existing faculty of about 1,600 and that the retirement age would be 65, McDonald said clearly the number of retirements is going to rise to about 57 per year, an increase of about 20 per year. McDonald and Cairns also projected that during the same period about 427 faculty would be lost through resignations. "The resignation rate has been declining over the last several years."

McDonald pointed out that there are significant differences among the Faculties. Law, Dentistry and Nursing, for example, have reasonably low rates of retirement but high resignation rates.

"Dentistry will likely have to replace all of their 33 people and more within this 10-year period. Law will be close to replacing everybody, and Nursing will likely have to replace more than their present complement," McDonald said, cautioning that within the data there is some double counting. Some positions, for example, might have two or three different people in them within the period.

"Those Faculties are going to have to figure out why people are leaving and try to do something about it."

Cairns pointed out that resignation rates within the first five years of service among younger faculty members are between eight and 10 percent. After that, they drop to two or three percent.

McDonald said the Faculty of Education will likely have 64 people retire within the 10-year period. "Once they get into Education, they tend to stay, and the same applies to Arts and Science, the biggest Faculties we have." In those two Faculties, the number of people who will retire will be quite high, but the forecast of people leaving for other reasons is quite low.

"We're going to have a considerable amount of recruiting activity in the next few years, but in total it doesn't look that much different than our recent past," he said.

On the retirement issue, McDonald said, "Our average age of retirees is about 61.8, while one study in the US indicated their average age was closer to 68."

We'll have some serious recruitment and retention problems

But they'll vary from discipline to discipline, says Vice-President Harris

There will be some recruitment and retention of faculty problems in the future, but they will not be catastrophic problems, the Vice-President (Finance and Administration) told participants at the Staffing the University of Alberta in the 1990s: Recruitment and Retention, 17 December.

Glenn Harris said there's no doubt market forces will drive up salaries. He predicted that recruitment and retention experiences will vary from discipline to discipline, but there will be slow and steady pressure on the University.

"How well we deal with the current problems we have over the next couple of years, which are beginning to be exacerbated by growing recruitment and retention difficulties, will influence how well positioned we are to compete [for future faculty]."

Glenn Harris

President Paul Davenport said that in the face of growing recruitment and retention problems, universities will have to be more selective where they put their resources. New faculty will be looking for outstanding departments and core groups of outstanding faculty.

The President said the University will have to work to retain its very best faculty and work to attract female faculty. Furthermore, the U of A will have to expand its PhD programs in an effort to encourage more young people to pursue graduate studies. "And it's vital that we support them better, especially in the humanities and social sciences."

Industry has to play a larger role in the funding of universities, Dr Davenport continued. But he added that many people look at the trends and say there's simply not going to be any money to hire new faculty. "I don't agree," he said, because students are going to continue to want to attend university. He predicted governments would reverse funding trends, because they will come to recognize university graduates' importance to the economy.

Rehabilitation Medicine Dean Martha Piper said she feared that if the University chooses to balance its budget on the basis of vacancies, it would harm the institution in the longer term. "Vacancies are the key to our future and if we sacrifice them now, we'll pay for it later."

Harris said there is a danger that money could be taken from the areas of least resistance. That's one of the reasons the University has to demonstrate its ability to adapt and reshape itself.

The Vice-President urged his colleagues to use the good data available to make informed decisions and underlined that the University itself has to learn how to respond to selective

treatment and explore more creative recruitment and retention strategies.

"How well we deal with the current problems we have over the next couple of years, which are beginning to be exacerbated by growing recruitment and retention difficulties, will influence how well positioned we are to compete [for future faculty]," he said.

Robert Davidson, Director of Research and Policy Analysis for the Association of Universities and Colleges of Canada, said faculty demand will increase steadily over the next decade. And Canadian universities, which rely heavily on the international market for new faculty, will be particularly vulnerable if a predicted shortage in American universities occurs. "Few Canadian universities will be able to compete with American universities."

Davidson, who was involved in an AUCC study of faculty needs, warned that universities shouldn't be surprised if attrition levels of young faculty grow because of increased stress. Eight hundred to 1,000 Canadian faculty change universities each year, he said. "We are already raiding each other."

He said entry-level remuneration is not sufficient to make academic life hospitable and attractive. He suggested universities should increase fellowships, create conditions that would enable women to participate more fully in academic life, shorten postdoctoral studies wherever possible and expand PhD programs.

Edmonton's information community eyes consortium

University of Alberta prominent in the picture

"Librarians are a cooperative breed."

- Anonymous library director

"Networking is an unnatural act."

- Another anonymous library director

It seems that if Edmonton's information community is to form a consortium, the first quote will have to appear in letters best suited for a billboard. As for the second, any type size above agate would be too large.

In terms of economics, the University of Alberta Libraries sees the writing on the wall. Director Ernie Ingles, one of the principle organizers of a wide-ranging session called "NEOS" (Networking Edmonton's Online Systems), said libraries can't continue along

cept. "Moreover, we believe that the common computer, as a resource, will have at least as much impact on the next century as the public library has had on ours."

Dr Grundner is director of the National Public Telecomputing Network at Case Western Reserve University in Cleveland, and founder of the Cleveland Free-Net, America's first, completely free, open-access, community computer system (see accompanying article).

"We're looking at a fourth medium here. It's not radio, TV, or print, but it has the characteristics of each," he commented. A culture of use has to be developed and that can only happen if the system penetrates blue collar neighbourhoods.

The success of the local consortium would depend ultimately on client satisfaction, Ingles said. Clients would 1) demand accountability

His opinion is that the time is right for an information consortium because libraries are looking to next generation systems and government education policy holds that "all students will have the programs and opportunities they need to succeed and achieve ... regardless of where they live ... regardless of the wealth of their community."

Doug Poff, Head of Information Technology Services, U of A Libraries, said, "In business terms, we're moving from a demand model to a supply model and that's a just-in-time model." For the University Library and other libraries, a consortium would be a high profile structure that could attract funding and political support. As well, participation in regional, national and international networks would be a simple matter. For the client, Poff said there would be but one place to look and that that could be done from the home or the office around the clock.

To Penny McKee, Director of the Edmonton Public Library, "information is just too important to hoard. We must relinquish a little of our turf for the greater good." She said libraries have to redefine themselves and become information brokers. "We have to work smarter, do with less, and have greater cooperation with other institutions. It's evident to me now that there's a will for a number of institutions to cooperate," McKee stated, adding that the Public Library and the U of A Libraries are exploring the possibility of working together more closely.

U of A President Paul Davenport said that the most fundamental expectations of libraries will have to change if users are to receive

better service. "Specifically, there will have to be a shift from a principle emphasis on building the most comprehensive collections of published material that we can afford, to an emphasis on making accessible the greatest amount of information we can, wherever it's located and whatever its format. Our primary goal for the library must shift from maximum ownership of material to maximum access to materials."

Every institution will have to maintain basic collections, he said, "but we ought to envision a time when the autonomous individual libraries are in substantial degree melded into a large, dispersed collection to which we all contribute and in which we all share equally, with appropriate allowances for our respective needs and investments."

Ruben Nelson, a futurist with Square One Management in Calgary, ventured that Alberta must become the world's foremost knowledge-driven society. "It's not the information technology that will get us ahead but the vision to use it," he said. "The vision is one that anyone can play in."

As the meeting (it was held 11 December in Bernard Snell Hall) continued into the evening, the question period was dispensed with. The University Libraries recently wrote those in attendance, asking them whether or not they wish to participate in the development of a shared system. They were asked to respond by 10 January.

Other speakers at the meeting were Steve Sutphen (Computing Science, U of A) on "Research Network Update," and Louise Bugg of Wayne State University in Detroit on "Shared System: The Detroit Area Library Network."



Tom Grundner describes the Cleveland Free-Net as "a common electronic fountain which anybody can contribute to or draw from."

their present course. They won't gain the support they need as long as they try to recreate the past, he told leaders from government administration and libraries, education, and the hospital and corporate communities.

Ingles put his finger on two key elements of commonality—"we share client groups and we're in an environment of economic constraint"—but said that before the consortium could be formed, models must be developed and studied, the key participants must be identified, the political will necessary for success must be assessed, and the commitment to action must not have any give to it.

"Above all, and I can't emphasize this too much, we're here to seek partners," Ingles stated.

Since there was no preconceived (consortium) model for governance, no set agenda as regards costs, membership and technology, and no contract to sign, the purpose of the meeting was to hear as much as possible about online systems and networking and gauge the interest in the proposal for a local information consortium.

"We find ourselves unable to imagine a 21st century in which we do not have community computer systems, just as this century has its public libraries," Tom Grundner said on the topic of the community computing con-

from tax-supported services; 2) have wide-ranging information needs; 3) expect current and concise results as well as personalized service; and 4) want the focus to be on the product not the technology.

The information window, Ingles continued, should be the one source for a range of library and other information services. There should be a consistent, easy to use interface and direct access to primary documents, and the window should be open anytime and anywhere.

He sees the challenges to the formation of the consortium as political ("to trust [one another] is a greater challenge than getting the technology"), administrative, technical ("there are still challenges in areas of open systems"), and economic.

A linked network of independent systems would make sense, especially when considering what Edmonton has to offer, Ingles said, citing the University and its large and diverse collections; the presence of six postsecondary institutions, the Government of Alberta and the Alberta Research Council; strong professional communities, for example, medicine and law; the Public Library system, one of the most heavily used in Canada; and the elementary and secondary school system.

Free-Net converts Cleveland into an electronic city

The Cleveland Free-Net opened in 1986. It was started with a basic system of about half a dozen SIGS (Special Interest Groups) and it was made clear that others were welcome to join. "It grew like a big plant," says Tom Grundner, who, with his associates, spent some five years experimenting with the new application in computing.

A multi-user computer was set up at Case Western Reserve University and connected to the telephone system through a series of modems. Running on the machine is a computer program that provides its users with everything from electronic mail services to information about health care, education, technology, government, recreation, etc. Anyone in the Cleveland metropolitan area with access to a home, office, or school computer and a modem can contact the system any time. They simply dial a central phone number, make connection, and a series of menus appears on

the screen which allows them to select the information or communication services they would like.

"Our biggest problem is that it works too well," Dr Grundner says. The system averages 5,800 logins a day and there are about 30,000 registered users who have more than 350 distinct information services to choose from. The success of the Free-Net is attributable to the small army of volunteers who manage the various services and the fact that the system is literally run by the community itself.

While the Free-Net is free to the user in the same sense that a public library is free, that's not to say it doesn't cost anything to run, Dr Grundner says. The system was made possible by donations from AT&T and the Ohio Bell Telephone Company; it continues to operate via grants and donations from private foundations, corporations, governmental sources, and private donors.

Top research awards going to Nakamura, Sykes

The recipients of the 1992 J Gordin Kaplan Awards for Excellence in Research are Alice Nakamura, Professor of Finance and Management Science, and Brian Sykes, Professor of Biochemistry.

In notifying the recipients, Vice-President (Research) Bob James said the award is "a modest gesture of our gratitude for the benefits that your research and scholarly activities have accrued to the University of Alberta and to its reputation throughout the world."

Professors Nakamura and Sykes will be joined by other Kaplan Award nominees at a dinner at the Faculty Club 12 March. Formal ceremonies, including a 20-minute lecture by each recipient, will start at 8 pm in Bernard Snell Hall, Mackenzie Health Sciences Centre.

Folio will profile Professors Nakamura and Sykes in the near future.

POSITIONS



The University of Alberta is committed to the principle of equity in employment. The University encourages applications from aboriginal persons, disabled persons, members of visible minorities and women.

Support Staff

To obtain further information on the following positions, please contact Personnel Services and Staff Relations, 2-40 Assiniboia Hall, telephone 492-5201. Due to publication lead time and the fact that positions are filled on an ongoing basis, these vacancies cannot be guaranteed beyond 3 January 1992. For a more up-to-date listing, please consult the weekly Employment Opportunities Bulletin and/or the postings in PSSR. Positions available as of 3 January 1992.

The limited number of vacancies is a result of the current Support Staff hiring freeze.

Applications for regular operating budget funded University positions (both full-time and part-time) are initially restricted to current bargaining unit employees. This is due to the current hiring freeze. Applications may be accepted from external applicants for some positions after internal staffing has been explored.

The salary rates for the following positions reflect adjustments in accordance with the terms for the implementation of the Pay Equity Program.

PUBLIC RELATIONS/PUBLICATIONS CLERK (Grade 4) (Part-time), Office of Public Affairs, (\$1,274 - \$1,570) (prorated)

CLERK TYPIST (Grade 5) (Part-time), Medical Lab Science, (\$1,325 - \$1,641) (prorated)

SECRETARY (RESEARCH) (Grade 5), Medicine/Red Cross, (\$1,855 - \$2,298)

SECRETARY (Grade 5), Dental Health Care, (\$1,855 - \$2,298)

SECRETARY (Grade 5), Environmental Research and Studies Centre, (\$1,855 - \$2,298)

ADMINISTRATIVE CLERK (Grade 5), Educational Foundations, (\$1,855 - \$2,298)

SENIOR STUDENT RECORDS PROCESSING CLERK (Grade 7), Office of the Dean of Education, (\$2,210 - \$2,769)

FOOD SERVICE WORKER (Grade 3) (40 hour week), Housing and Food Services, (\$1,778 - \$2,193)

FOOD SERVICE WORKER (Grade 4) (40 hour week), Housing and Food Services, (\$1,941 - \$2,392)

The following positions retain salary rates in accordance with the previous classification system and pay plan.

SECRETARY (Trust/Term to 31 August 1992), Faculty of Medicine, (\$1,744 - \$2,228)

BIOCHEMISTRY TECHNICIAN I/II (Trust), Biochemistry (PENCE), (\$1,808 - \$2,639)

TECHNOLOGIST I (Trust), Biochemistry, (\$2,230 - \$2,876)

BIOCHEMISTRY TECHNOLOGIST I (Trust), Pharmacology, (\$2,230 - \$2,876)

PROGRAMMER ANALYST II (Trust/Term), Computing Science, (\$2,639 - \$3,429)



ACCOMMODATIONS AVAILABLE

VICTORIA PROPERTIES - Experienced, knowledgeable realtor with Edmonton references will answer all queries, and send information. No cost or obligation. Call (604) 595-3200, Lois Dutton, Re/Max, Ports West, Victoria, BC.

VISITING TORONTO? Stay in our restored downtown home. Minutes to University of Toronto. Weekly rates with kitchen/living room from \$290. Bed and breakfast from \$50 daily. Ashleigh Heritage Home, (416) 535-4000.

RENT - Adjacent to golf course. Large executive home, front drive garage, four bedrooms plus loft. Furnished, unfurnished, 1 January, one year. Rent \$1,500/month. Western Relocation, 434-4629.

RENT - Borden Park area, three bedrooms, two baths. Access downtown/University. One block river valley. Six month/one year lease. Six appliances, galley kitchen, garage. \$900/month. Western Relocation, 434-4629.

Continued on page 2

A NEW YEAR'S GREETING TO THE UNIVERSITY COMMUNITY

In 1992 the economic crisis at the University will deepen. Programs will be further reduced or eliminated, library resources will continue to erode, non-academic staff will be laid off, and many students and sessional instructors will face hardship. The reality of such dangers makes it all the more important that our commitment to educational and employment equity remain firm and not be influenced by imaginary threats to our excellence. As an academic community we will only be strengthened by greater diversity. Let us come together in the New Year to face the real crisis in a spirit of solidarity and mutual respect.

Baha Abu-Laban
Sharon McIrvn Abu-Laban
Annalise Acorn
Luzmira Acuna
Laurie Adkin
Scott Allison
R.F. Anderson
Margaret-Ann Armour
Michael Asch
Marilyn Assheton-Smith
W.A. Ayer
Ronald Ayling
Doris Badir
David Bai
Richard Bauman
Cathy Bell
Jo-Anne Berelowitz
Istvan Berkely
Jeff Bisanz
Ted Blodgett
Jacques Bobet
H. Boritch
Marisa Bortolussi
L. J. Bossenberry
Donald Bruce
Iris Bruce
Joan Brumlik
Pat Brunel
Jeanette Buckingham
Chris Bullock
G. Burger
Terry Butler
Iris E. Campbell
Sandy Campbell
Frederick F. Cantwell
Linda Capjack
Kathy Carter
Joanne Cey
Edward Chambers
Victor Chan
Larry Chartrand
Dianne Chisholm
Dan Coleman

David Cooper
Wes Cooper
Claude Couture
F. C. De Coste
Jim Creechan
Donna Crosslev
Betty Crown
Dallas Cullen
Tamara Dabrowski
Gurston Dacks
L. Davis
Michael Dawson
Celia De Castro
Kathleen De Long
Anne Marie Decore
Partricia Derossi
Jasbir Dhaliwal
Merrill Distad
Peter Dixon
Norman J. Dovichi
Paul Dubé
Bridget Elliott
Frank Epling
Garrett Epp
Fernanda Ferreira
A. D. Fisher
Brian Fisher
Anna Frank
John Freeman
Milton Freeman
Robert Frender
Pearl Frost
Jennifer Gammon
Judy Garber
John Gartrell
David Gay
Bob Gephart
Michael Gibbins
Nancy Gibson
Mike Gillespie
Judith Golec
Douglas Grant
Georgia Grant

Joan Greer
Maggie Haag
Jim Hackler
Ann Hall
Susan Hamilton
Glenda Hanna
Vicki Harber
Indira Haripersad
Francis Harley
R.T. Harrison
Jonathan Hart
Kathryn Harvey
Donald Hazlett
John Henderson
Donald Heth
Thomas Heyd
Paul Hjartason
Eric Higgs
John-Paul Himka
Tom Hinch
Bob Hinings
Brian Hobbs
G.A. Hollingshead
Michael Hymers
Yasuko Inoue
Ivan Ivankovich
Susan Jackel
Michel Joffres
W.A. Johnston
Fred Judson
Alena Kana
Moya Kavanagh
Tom Keating
Gary Kelly
Stephen A. Kent
J. Kerr
Linda Kerr
Maureen Knight
Philip Knight
Khrystia Kohut
Karl R. Kopecky
Ksenia Kopystynska
Harvey Krahn

Byron Kratochvil
P. Krishnan
Gerard Kysela
Francis Landy
George Lang
Jean Lauber
Gordon Laxer
Judy Lederer
Martin Lefebvre
Jeanne Lepine
Lila Lesko
Yue-Ling Li
Bernard Linsky
H. J. Liu
Graham Lowe
Linda Lunde
Heather Lysons
Kathy Macmahon
Anu Mani
Sally Manwaring
Jack Masson
Faye Maxwell
Susan McDaniel
Heather McDermid
Gerry McGlennon
David S. Miall
Tina Michaelian
John Miletich
David Millar
Robin Minion
Wendy Minns
Barry Mitchelson
David Mitsui
Ray Morrow
Joan Munro
Alice Nakamura
Masao Nakamura
David Nash
Anne Neufeld
Shirley Neuman
Jim Newton
A. Brian Nielsen
Sandra Niessen

Leslie Oakes
B. O'Brien
Peter Olley
Hope Olson
Lahoucine Ouzgane
Henry Pabst
Marsha Padfield
Raj Pannu
Cynthia Paszkowski
Allen Pearson
Ursula Pilmeier
Jana Pivetz
James A. Plambeck
Ellie Prepas
Tony Purdy
W. Quoika-Stanka
Nasrin Rahimieh
Don Randall
Daphne Read
Linda Reha-Krantz
Joyce Relyea
Yonatan Reshef
Ann Robertson
Desmond Rochfort
Alan Rutkowski
P. A. Saram
Linda Seale
David Schiff
Harvey Scott
Thomas Scott
Deborah Scott-Douglas
David Sharp
David Sharplin
Roger A. Shiner
Debra Shogan
Gail Shuua
R. A. Silverman
Birendra Sinha
D. Lynn Skillen
Byrna Skrypnek
Trevor Slack
Leslie Smith
Malinda S. Smith

Edrie Sobstyl
Ruth Starr
Lloyd Steier
G. Stephenson
Kay Stewart
Gordon E. Swaters
Jeske Sybesma
R. A. Sydie
Guy Swinnerton
Dennis D. Tanner
Gerald Taylor
Anita Theroux
Linda Thompson
Lyn Thompson
Robert Thornberry
Barbara Townley
Dallas Treit
Linda Trimble
Allan Tupper
Martin M. Tweedale
K. Urban
Ian Urquhart
John Usher
P. Valentine
Fred Van de Pitte
Margaret Van de Pitte
Connie Varnhagen
John Vederas
Doug Wahlsten
Christine Wankiewicz
Jane Watkinson
Garry Watson
David Whitson
Cliff Wilkinson
Janice Williamson
C. R. Wilson
Kit Wilson
Clif Young
David Young

This greeting has been paid for by the above individuals.

TALKS



ACCOUNTING

10 January, 2 pm

Alan Richardson, Queen's University, "Civil Rights and Public Accounting: Constitutional Challenges to Accounting Regulation in Canada." B-05 Business Building.

APPLIED MATHEMATICS INSTITUTE

14 January, 3:30 pm

Michael J Ward, Courant Institute, New York, "Strong Localized Perturbations of Linear and Nonlinear Eigenvalue Problems." 657 CAB.

21 January, 3:30 pm

Yuri Sybil, "The Method of Integral Equations for Boundary Value Problems in Nonregular Regions." 657 CAB.

ART AND DESIGN

23 January, 5 pm

Robert Bringham, visiting poet and author, "The Black Canoe: Bill Reid and the Spirit of the Haida Gwaii." Cosponsor: School of Native Studies. B2 Tory Lecture Theatre.

BOTANY

16 January, 4 pm

Sean P Abbott, "Taxonomic Studies of the Helvellaceae in Northern and Western North America." M-149 Biological Sciences Centre.

CHEMICAL ENGINEERING

16 January, 3:30 pm

B Zhou, "The Role of Lewis and Brsted Sites in Selective Oxidation of Propylene on MoO_3 - SbO_4 Catalysts." 342 Chemical-Mineral Engineering Building.

23 January, 3:30 pm

K-Y Kwok, "Adaptive Control of Arterial Blood Pressure." 342 Chemical-Mineral Engineering Building.

CLOTHING AND TEXTILES

16 January, 1 pm

Wendi Weir, "Japanese Shibori Textiles." 131 Home Economics Building.

23 January, 1 pm

Joan Fulton, "Macro Economics, Social Organization, and Economic Development Theories Applied to the Canadian Craft Industry." 131 Home Economics Building.

COMPARATIVE LITERATURE

17 January, 3:30 pm

Erwin J Warkentin, "The Works of Wolfgang Borchert as a Product of Nazi Germany." Senate Chamber, Arts Building.

EAST AND CENTRAL ASIAN COLLOQUIUM

23 January, 4 pm

Eva Dargay, "Reading the Sacred Biographies of Tibet in a Post-Modern Context." Senate Chamber, Arts Building.

ENGLISH

14 January, 3:30 pm

Howard Felperin, New York University, "Deconstructing Shakespeare's Sonnet 116." 5-20 Humanities Centre.

15 January, 4 pm

Howard Felperin, "Shakespeare, Deconstruction and Related Topics II." 5-20 Humanities Centre.

16 January, 3:30 pm

Howard Felperin, "Political Criticism at the Crossroads: Towards a Utopian Hermeneutics." To be followed by a reception. 5-20 Humanities Centre.

22 January, 4 pm

Sheila Watson Reading Series—Canadian poet Robert Bringham reads from his work. Sponsor: Canada Council. L-3 Humanities Centre.

GEOGRAPHY

17 January, 3 pm

Brian O'Donnell, director-general, Atmospheric Environment Service, "Modernising Canada's Meteorological Service: From Eye-balls to Electronics." 3-36 Tory Building.

24 January, 3 pm

Doug Porteous, University of Victoria, "The Geography of Being." 3-36 Tory Building.

HUMAN ECOLOGY: ISSUES IN THE NORTH

14 January, 2:30 pm

Ross Wein, "Environmental Issues in Wood Buffalo National Park." L-2 Humanities Centre.

21 January, 2:30 pm

Randy Lawrence and Lorraine Sinclair, Mother Earth Health Society, "Environmental Issues Affecting Northerners." L-2 Humanities Centre.

INTERDISCIPLINARY LECTURE SERIES IN CULTURAL STUDIES

13 January, 4:30 pm

Susan Smith, "Health and History: Good Intentions and Bad Blood in Alabama." L-3 Humanities Centre.

INTERNATIONAL CENTRE

13 January, noon

"A Handle on Health", video, 27 minutes; and "Not Far From Bolgatanga", film, 28 minutes. 172 HUB International.

13 January, 3 pm

Gertrude Shope, president, African National Congress (ANC) Women's League and member, National Executive Council of the ANC, "Building a Just Society in South Africa." 172 HUB International.

20 January, noon

"Trees of Plenty", video, 20 minutes; and "Bamboo—The Miracle Grass", video, 21 minutes. 172 HUB International.

LAW

18 January, 9:30 am

Saturday Morning at the Law School—"Family Law." Information: 492-3115. Law Centre.

21 January, noon

Rick Gossen, managing director, Asterra International Property and Capital Ltd, Hong Kong, "How to Find Legal-Related Employment in Hong Kong." 113 Law Centre.

OBSTETRICS AND GYNAECOLOGY

10 January, 4 pm

William Everson, assistant professor, Department of Obstetrics and Gynaecology, Perinatal Research Institute, University of Cincinnati, "Coordination of PGE₂ Production and Expression of Cyclo-Oxygenase Isoforms in Phorbol Ester-Stimulated Amnion Cells." 652 Heritage Medical Research Centre.

17 January, 4 pm

Simon Riley, postdoctoral fellow, The Lawson Research Institute, St Joseph's Health Centre, University of Western Ontario, "Placental Paracrine Interactions and the Regulation of Parturition." 652 Heritage Medical Research Centre.

PLANT SCIENCE

14 January, 12:30 pm

Persa Cernaic, "Touch Response in Plants." 1-06 Agriculture-Forestry Centre.

16 January, 12:30 pm

Dengjin Bing, "Is Herbicidal Gene and its Resistance Safe?" 1-06 Agriculture-Forestry Centre.

21 January, 12:30 pm

Chao Jiang, "Cell Cycle." 1-06 Agriculture-Forestry Centre.

23 January, 12:30 pm

Zhongming Ge, "Interferon." 1-06 Agriculture-Forestry Centre.

SCHOOL OF LIBRARY AND INFORMATION STUDIES

15 January, noon

WJ Kurmey, "Knowledge Representation Using Semantic Clusters." 3-01 Rutherford South.

23 January, 7:30 pm

Anna Altmann, "Welding Brass Tits on the Armour: An Examination of the Quest Metaphor in Robin McKinley's *The Hero and the Crown*." 3-01 Rutherford South.

SLAVIC AND EAST EUROPEAN STUDIES

20 January, 3 pm

Zoran Starcevic, "The Language Politics in Former Yugoslavia." 141 Arts Building.

SOIL SCIENCE

16 January, 12:30 pm

Frank Larney, Agriculture Canada, Lethbridge, "Soil Erosion-Crop Productivity Relationship." 2-36 Earth Sciences Building.

23 January, 12:30 pm

Simon Pollard, "Analytical Challenges in the Characterization of Hydrocarbon-Contaminated Sites." 2-36 Earth Sciences Building.

STATISTICS AND APPLIED PROBABILITY

15 January, 2 pm

Michael Prior, Toxicology Branch, Alberta Environment Centre, Vegreville, "From Anova to Fractals, a Toxicologist's View of Statistics." 257 CAB.

UNIVERSITY OF ALBERTA

HEALTH SERVICES PEER EDUCATORS

16 January, 4 pm

Public seminar, "Facts, Myths and Information About Asthma." B2 Tory Lecture Theatre.

WOMEN'S STUDIES PROGRAM

14 January, 3:30 pm

Gertrude Shope, president, African National Congress Women's League, "Women in South Africa Today." L-2 Humanities Centre.



This symbol denotes environmentally related seminars/events. If you wish to have an environmentally related event listed in this way, please contact: The Environmental Research and Studies Centre, 492-6659.

SEARCH COMMITTEE FOR VICE-PRESIDENT (RESEARCH)

Dr Bob James's term as Vice-President (Research) has been extended six months by the Board of Governors; his term will end on 31 December 1992. Accordingly, a Search Committee for Vice-President (Research) is now being struck and the new Vice-President would assume office on 1 January 1993.

The composition of the Search Committee for Vice-President (Research) includes three members of the full-time and continuing part-time faculty who do not hold administrative positions and who are not on leave. Nominations for these positions are now being sought.

Written nominations supported by the signatures of five members of the full-time and part-time academic staff (not including the nominee) may be submitted to the Director of the University Secretariat, Ellen Schoeck, 2-5 University Hall. **Nominations must be received by Tuesday, 28 January 1992, 4:30 pm.** Nominees must agree to stand for election to the Search Committee. GFC regulations require that nominees may not be holders of administrative positions, such as Dean or Department Chair, since administrators are already represented on the Search Committee. The full composition of the Search Committee for Vice-President (Research), together with nomination and election procedures, is contained in Section 102 of the GFC Policy Manual. If you have any questions about eligibility to serve or to nominate, please call Ellen Schoeck at 492-5430.

EVENTS



DANCE

MYER HOROWITZ THEATRE

17 and 18 January, 8 pm

Dance Motif '92. Tickets and information: 492-2677.

EXHIBITIONS

BRUCE PEEL SPECIAL COLLECTIONS

Until 21 February

"Twilight of the Raj"—an exhibition of books on the British in India with some letters to Lord Curzon. B7 Rutherford South. Hours: Monday and Friday, 8:30 am to 4:30 pm; Tuesday to Thursday, 8:30 am to 6 pm; Saturday, noon to 5 pm; Sunday, closed.

CLOTHING AND TEXTILES

Until 30 April

"What is Textile Conservation?" This exhibit explains the concerns and work of textile conservators using examples of textile treatments from the lab of Conservation Services. Basement, Home Economics Building. Hours: Monday to Friday, 8 am to 5 pm.

MCMULLEN GALLERY

Until 27 January

"Sand, Fire and Light"—an exhibition, curated by E Ross Bradley, of work by contemporary Albertan glass artists John Norton, Helen Kovacs, Mark Gibeau, Lorie Hedemark and Barbara Pierce. Gallery hours: Monday to Friday, 10 am to 4 pm; Saturday and Sunday, 1 to 4 pm (subject to availability of volunteers). Information: 492-8428, 492-4211. Walter C Mackenzie Health Sciences Centre.

SPORTS

BASKETBALL

10 and 11 January, 6:30 pm

Pandas vs Saskatchewan

10 and 11 January, 8:15 pm

Bears vs Saskatchewan

HOCKEY

17 and 18 January, 7:30 pm

Bears vs Manitoba

23 January, 7:30 pm Bears vs Calgary

TRACK AND FIELD

17 to 19 January

Inter University Meet. Butterdome.

VOLLEYBALL

17 and 18 January, 6:15 pm

Pandas vs British Columbia

17 and 18 January, 8 pm

Bears vs British Columbia

THE HUB CONNECTION



Our HUB Cat pays you to SHOP!

Simply pick up your HUB CLUB Bonus Card at any mall merchant to receive

- A chance to win:-tickets to The Edmonton Opera. -a \$500.00 Shopping spree.
- A FREE HUB environmentally friendly mug. (good while quantities last)
- A maximum 10% payback on your purchase in HUB cash. (details on card)

 <p>HOT RAZOR \$5.00 off all Mastey Litres. 10% discount on all other Mastey products.</p>	<p>JAVA JIVE FRESH ROASTED GOURMET COFFEE</p> <p>\$1.00 Off Any Gourmet Coffee purchase over \$5.00</p> <p><small>Limit One Coupon per Purchase Valid at all Locations</small></p>	<p>75c OFF </p> <p>With a purchase of a regular Chicken item. HUB Mall only. Expires on April 30, 1992 No cash value.</p>
<p>WATCH FOR WEEKLY SPECIALS THROUGHOUT JANUARY.</p> 	<p>FREE HUB CAMERA EXPERT</p> <p>Camera Expert Film with Every Roll of Color Film 24 or 36 Exposure brought in for photofinishing.</p> <p><small>-Bring coupon to qualify. -Offer not valid with other discounts. -Offer expires Feb. 15/92.</small></p>	<p>MY OPTICAL </p> <p>Grand Opening</p> <p>Eyewear on the Edge at Fabulous Prices Located at south end of HUB Mall</p>
<p>NOW OPEN</p>  <p>Soft Taco and a Regular  only</p> <p>SPECIAL \$2.89+GST Expires Feb. 15/92</p>	 <p>Come and try our new sandwich and salad bar.</p> <p>SOUP + SANDWICH \$4.95 GST included. "Nobody treats you better"</p>	<p>VARSIITY</p> <p>Taymor Premier Backpack Gopher Organizer Model #23-178</p> <p>LESS THAN HALF PRICE \$9.99</p>

Complimentary Weekend Parking with purchase of Zone only



Six stylists plus a full-time esthetician at your service

WEDNESDAYS: staff and student special on cuts

Located in WMC
Phone: 492-8403

ATRIUM HAIR CENTRE

Catherine M. Fletcher B.A. (Hon.), M.Sc., D.D.S.

DENTIST

Catherine M. Fletcher Professional Corporation
330 Garneau Professional Centre
11044 82 Avenue
Edmonton, Alberta T6G 0T2
Telephone (403) 439-2266

Office Hours:
MWF 8-4
TTh 10-6

ADS Continued from page 5

SALE - Riverbend, Ramsay Road, contemporary 2,300' two storey, three bedroom. Landscaped, fenced, vaulted ceilings. This house has everything! Janet Jenner/Jean Mill, Spencer Realty, 435-0808.

RENT - Lansdowne, southwest bungalow, fully furnished, fireplace, double garage. January - 31 March. Western Relocation Services, 434-4629.

SALE - Claridge House, spacious one bedroom. Top floor, walk to University, northwest exposure. Brick fireplace, two underground stalls, five appliances, \$115,000. Kenneth Colpitts, ReMax Real Estate, 438-1575 business, 445-7500, pager.

RENT - Three bedroom unfurnished end-unit condo in Hearstone. Two floors and basement; garage. Direct bus line to University, available 1 February, \$1,000/month. 434-6586 evenings.

SALE - Belgravia, spacious three bedroom bungalow, great oak woodwork. Quiet location, south backyard, asking \$169,900. Ed Lastiwka, Royal LePage Realty, 446-3800.

SHARE - Windsor Park, two of three bedroom house, \$325 each monthly, 433-4112.

RENT - Furnished home, four bedrooms plus den, backing on to park in St Albert. August - June 1993, \$1,100 plus utilities, 492-0106, 460-2918.

RENT - One bedroom basement suite, large, modern, clean, quiet. Available immediately, private home, Ottewell, park. \$410 including utilities, 437-7922.

SALE - University area, luxury condo, 11114 83 Avenue. 1,316', two storey, two bedrooms, two bathrooms, fireplace, five appliances, cathedral ceiling, indoor parking, \$129,900. 439-5169.

RENT - Glenora, large basement, bedroom, private bath, some cooking facilities. Garage available, linen supplied. Till end April, \$225/month. Eight minutes to University. Phone 452-2571.

ACCOMMODATIONS WANTED

HOUSESITTER available, May-August 1992. Responsible, married PhD graduate student. For reference, contact WCD Mackay, 492-2538, (403) 783-2331.

GOODS FOR SALE

CASH PAID FOR APPLIANCES, 432-0272.

BACK TO EUROPE SALE - Furniture, appliances, household goods. Evenings and weekends, 7203 127 Avenue, Edmonton. Call 475-9008.

SERVICES

DONNIC WORD PROCESSING - Since 1978, specializing in theses, manuscripts, etc. 453-2769.

COMPUTERIZED LITERATURE SEARCHING - Expert information retrieval by experienced scientist. All areas. Requests accepted by phone. No red tape! Competitive rates. Satisfaction guaranteed. JL Citation Services, 487-8652.

DAVID RICHARDS CARPENTRY - Certified journeyman NAIT. Complete interior and exterior residential renovations including plumbing and electrical. References available. 433-6369.

BACK BASICS remedial therapy, 436-8059. Supplementary healthcare coverage.

PROFESSIONAL TYPIST - Word processing. Specializing in theses, dissertations, manuscripts. Gwen, 467-0515.

MARC'S WORD PERFECT 5.1 SERVICES. Type résumés, letters, memos, theses, manuscripts. Reasonable rates. Phone 435-3488.

TECHNICAL EDITOR AND WRITER. Familiar with APA and MLA styles. References. Call Patricia Craig at 492-5837 or 452-3109.

AD HOC BUSINESS SERVICE - Word processing/laser print. Medical and general transcription, letters, reports, theses, résumés, manuscripts. 451-3315.

The Academic Women's Association is now accepting nominations for the

AWARD

Every member of the university community is eligible to nominate a University of Alberta woman in recognition of her contributions to the betterment of women in the University community, either through the course of her career or through her dedication to current activism.

Send your nominations to:
Sandra Niessen, 115 Home Economics Building,
by 1 February 1992.

An evening to celebrate the AWARD winner is planned for the spring.

THE PALISADES ENVIRONMENTAL SCIENCE CENTRE

Available to educational institutes and groups for meetings, workshops, courses and as a research station.

- meeting rooms - accommodation - meals - games room -
- inclusive packages, weekend and extended stay rates -
- operated by the Canadian Parks Service -

Located 15 km from Jasper in Jasper National Park

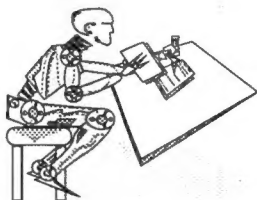


For Information:

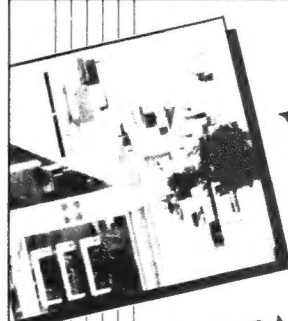
Phone: 1-852-6192 or FAX: 1-852-5601

THE ELECTRONIC SCRIBE Desktop Publishing Studio

- Typesetting
- Photocopying
- Laser Printing
- Graphic Design
- Word Processing
- Macintosh Rental
- Computer Courses



11 Fairway Drive, #218 - Westbrook Shopping Centre 438-9445



We're Still Here

SENATE TRAVEL

Working with the University Community since 1969. University, business or vacation travel! Whether you need unique arrangements or travel on a budget we've been studying your travel needs for over 20 years.

Groups, Conference Arrangements,
Air, Tour, Hotel and Car Reservations.
Insurance, Rail Passes.

Conveniently located in Hub Mall on the U of A Campus.

SENATE TRAVEL U of A Travel Specialists
Phone 492-2756 • 9006 HUB MALL

ARTranslation Inc.
Translation & Editing Services

Annie Robberecht
Certified Translator (ATIA, STQ)

Tel. 438-6105 Fax 436-9027
Full Editing Services Available in French

FRENCH CLASSES

2 EVENINGS A WEEK
Mondays and Wednesdays
6:30 p.m. - 8:30 p.m.
January 15 to March 30, 1992
\$140.00 (40h). All levels.

SATURDAY MORNINGS
10:30 a.m. - 1:30 p.m.
January 18 to March 28, 1992
\$110.00 (30h). All levels.

DROP-IN CONVERSATION
for students and members
Thursdays from 7:00 p.m.

ALLIANCE FRANÇAISE
#300, 10318 - 82 av.
433-0671



PLEASE
RECYCLE
THIS
PAPER



St. Stephen's College

The Senate of St. Stephen's College Invites Honorary Degree Nominations

St. Stephen's College is accepting nominations for recipients of the degree of Doctor of Divinity honoris causa to be conferred at the fall Convocation, 1992.

The degree recognizes and honours individuals who:

- have demonstrated outstanding commitment to the church's ministries
- have given meritorious service which contributes to the spiritual and social well-being of the community
- provide leadership in denominational and ecumenical circles

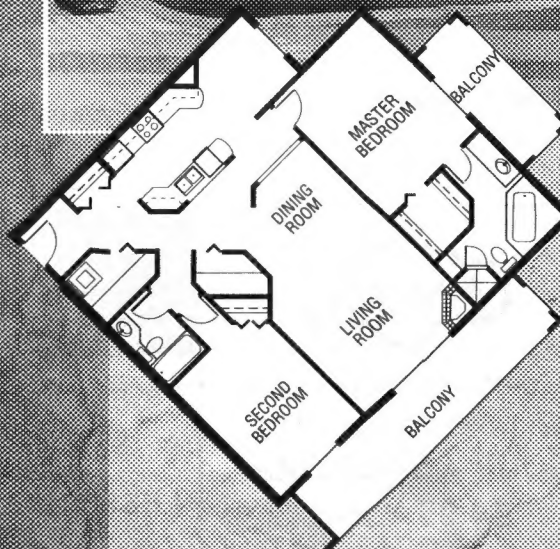
Please request nomination forms from the College by calling or writing to:

Dolores Bell
St. Stephen's College
8810 - 112 Street,
Edmonton, Alberta, T6G 2J6
Phone: (403) 439-7311

Deadline for nominations is March 15, 1992

NOW PRE-SELLING

STRATFORD IN BELGRAVIA



**Within Walking Distance
of the University
74 Avenue & 118 Street**

Luxury condominiums with a distinctive difference - Affordability. Located in prestigious Belgravia, across from a park and only minutes from the University Campus. 38 exclusive homes at prices you won't believe.

- Underground Heated Parking
- Elevator Access
- 2 & 3 Bedroom Units From 1265-1550 Sq. Ft.
- Some Units with Lofts
- 6 ft. Jacuzzi Tubs
- Exercise Room
- Party Room
- Faces onto Park

**Prices Starting from
\$137,500**

(including Net GST)

Marketed Exclusively by
Alan Gee
438-1575

RE/MAX Real Estate

